



[4910-13]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 36

Docket No.: FAA-2012-0948; Notice No. 12-06

RIN 2120-AJ96

Stage 3 Helicopter Noise Certification Standards

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This rulemaking proposes to adopt more stringent noise certification standards for helicopters that are certificated in the United States (U.S.). This rule would apply to applications for a new helicopter type design and for a supplemental type certificate for those new type designs. A helicopter type certificated under this standard would be designated as a Stage 3 helicopter. This rule proposes to adopt the same noise certification standards for helicopters that exist in the standards of the International Civil Aviation Organization (ICAO). The proposal of these more stringent noise certification standards into U.S. regulations is consistent with the FAA's goal of harmonizing U.S. regulations with international standards.

DATES: Send comments on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: Send comments identified by docket number **FAA-2012-0948** using any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov> and follow the online instructions for sending your comments electronically.
- Mail: Send comments to Docket Operations, M-30; U.S. Department of Transportation (DOT), 1200 New Jersey Avenue, SE., Room W12-140, West Building Ground Floor, Washington, DC 20590-0001.
- Hand Delivery or Courier: Take comments to Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- Fax: Fax comments to Docket Operations at 202-493-2251.

Privacy: The FAA will post all comments it receives, without change, to <http://www.regulations.gov>, including any personal information the commenter provides. Using the search function of the docket web site, anyone can find and read the electronic form of all comments received into any FAA docket, including the name of the individual sending the comment (or signing the comment for an association, business, labor union, etc.). DOT's complete Privacy Act Statement can be found in the Federal Register published on April 11, 2000 (65 FR 19477-19478), as well as at <http://DocketsInfo.dot.gov>.

Docket: Background documents or comments received may be read at <http://www.regulations.gov> at any time. Follow the online instructions for accessing the docket or go to the Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: For technical questions concerning this proposed rule contact Sandy Liu, AEE-100, Office of Environment and Energy, Federal Aviation Administration, 800 Independence Avenue, SW, Washington, DC 20591; telephone: (202) 493-4864; facsimile (202) 267-5594; email: sandy.liu@faa.gov. For legal questions concerning this proposed rule contact Karen Petronis, AGC-200, Office of the Chief Counsel, Regulations Division, Federal Aviation Administration, 800 Independence Avenue, SW, Washington, DC 20591; telephone: (202) 267-3073; e-mail: karen.petronis@faa.gov.

SUPPLEMENTARY INFORMATION:

Authority for this Rulemaking

The FAA's authority to issue rules on aviation safety is found in Title 49 of the United States Code. Subtitle I, Section 106 describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority.

This rulemaking is promulgated under the authority described in Subtitle VII, Part A, Subpart III, Section 44715, Controlling aircraft noise and sonic boom. Under that section, the FAA is charged with prescribing regulations to measure and abate aircraft noise. This proposed regulation is within the scope of that authority since it would establish new noise certification standards for helicopters that would be applicable to new type designs.

Background

ICAO Noise Certification Standards

The International Civil Aviation Organization (ICAO) is the international body with the responsibility for the development of international standards under the Convention on International Civil Aviation (the Chicago Convention). Consistent with their obligations under the Chicago Convention, Contracting States agree to implement ICAO standards in their national regulations to the extent practicable. The United States is a Contracting State to the ICAO. The standards for aircraft noise are contained in ICAO Annex 16, Environmental Protection, Volume 1, Aircraft Noise.

In 1997, ICAO's Committee on Aviation Environmental Protection (CAEP) chartered the Rotorcraft Task Group (RTG) to study potential increases in the stringency of noise certification standards for helicopters. The FAA participated in the RTG from 1997 to 2000. By the fifth session of CAEP in 2001, more stringent noise standards for helicopters were defined. These standards prescribe the lowering of noise limits for new helicopter types while using the same helicopter noise certification test procedures that the United States had incorporated into part 36, Appendices H (1988) and J (1992).

On June 29, 2001, CAEP's proposed noise stringency increases were adopted by the ICAO Council for incorporation into Annex 16, Volume 1, Chapter 8 and Chapter 11 (Amendment 7). ICAO guidelines became effective on October 29, 2001, with an applicability date of March 21, 2002.

Statement of the Problem

Although ICAO adopted increased noise stringency standards for helicopters in 2002, the United States has yet to adopt these standards into part 36. There has been heightened public awareness of helicopter noise in the United States, and the FAA has determined that the public would benefit from adoption of these more stringent standards.

The FAA's adoption of these more stringent certification standards into part 36, including in Appendices H and J, would also satisfy the goal of harmonizing U.S. regulations with international standards. This rulemaking proposes to adopt the same noise certification standards for helicopters that exist in ICAO Annex 16, Volume 1, Chapter 8 and Chapter 11 (Amendment 7).

History of U.S. Helicopter Noise Regulations:

In 1973, the FAA published an advanced notice of proposed rulemaking (ANPRM) (38 FR 35487, December 28, 1973) that proposed standards for aircraft with efficient short stage length operations. This class of aircraft, referred to as "short-haul", included aircraft with short, reduced, vertical, or near vertical takeoff and landing capabilities.

Subsequently, the FAA sought further study of appropriate noise technologies. At the time of the ANPRM, U.S. noise regulations in part 36 did not include regulations applicable to short-haul aircraft, including helicopters.

The ANPRM invited public participation in the identification and development of standards for additional relief and protection to the public health and welfare from aircraft noise. Comments from the ANPRM caused the FAA to focus on appropriate noise limits consistent with the current technology in drafting an NPRM. In 1979, the FAA issued an NPRM (44 FR 42410, July 9, 1979) that proposed first ever helicopter noise certification standards that included noise limits. Comments to the NPRM indicated that there was no noise abatement technology available at the time that could meet the proposed noise levels. The FAA subsequently withdrew the NPRM (Notice No. 79-13, 46 FR 61486, December 17, 1981).

In 1982, the National Aeronautics and Space Administration (NASA), the FAA, and American helicopter manufacturers set up an accelerated joint research program to develop helicopter noise abatement technology. This cooperative, 20-million dollar, multi-year program was established to reduce helicopter external noise, and develop noise prediction tools that could significantly lower the costs of applying the technology. The FAA continued to study the issues of noise certification of helicopters in collaboration with ICAO's noise working group. On March 6, 1986, the FAA issued an NPRM (Notice No. 86-3, 51 FR 7878) that proposed helicopter certification standards that were more consistent with then-current technology, and followed procedures similar to ICAO Annex 16.

On February 5, 1988, the FAA amended part 36 to include the first U.S. helicopter noise certification regulations. These regulations set limits on noise emissions for new helicopter type designs. The regulations designated Stage 1 helicopters as those that did not meet the newly established limits or had never been tested. Stage 2 helicopters were those that met the new certification standards as defined by the noise limits and test procedures designated in the regulations. The new certification standards applied to the issuance of original and amended type certificates for helicopters. In addition, the regulations prohibited changes in the type design of helicopters that might increase their noise levels beyond certain limits. These regulations followed the standards adopted in ICAO Annex 16 and included additional corrective conditions for engine thrust or power.

This rulemaking proposes the adoption of the most recent international noise standards for helicopters and would allow compliant designs to be designated Stage 3. These standards would apply to any person submitting an application for a new helicopter

type design on and after the effective date of the final rule. This proposal is consistent with the effort of the fifth session of CAEP and its approval of the ICAO standards for helicopter noise that were developed internationally.

General Discussion of the Proposal

This rulemaking proposes more stringent noise limits for helicopters to be type certificated in the United States. The standards would apply to the issuance of a new type certificate, and subsequent changes to a type certificate for which application is made after the effective date of this rule. This rule proposes to incorporate the same standards for helicopters adopted in ICAO Annex 16, Volume 1, Chapter 8 and Chapter 11 (Amendment 7), consistent with the FAA goal of harmonization of regulations with international standards.

These proposed regulations would:

- Amend § 36.1 noise certification standards for the issuance of type and airworthiness certificates for helicopters, including new definitions and an applicability date for the standards;
- Revise § 36.11 acoustical change requirements to include Stage 3 helicopters;
- Amend § 36.805 to add dates of applicability for the new Stage 3 noise limits prescribed in appendices H and J of part 36;
- Amend Appendix H to part 36 to include new noise certification limits for Stage 3 helicopters of all helicopter weights; and
- Amend Appendix J to part 36 to include a new noise certification limit for Stage 3 helicopters of 7,000 pounds or less.

Regulatory Evaluation, Regulatory Flexibility Determination, International Trade

Impact Assessment, and Unfunded Mandates Assessment

Changes to Federal regulations must undergo several economic analyses. First, Executive Orders 12866 and 13563 direct that each Federal agency shall propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 (Pub. L. 96-354) requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (Pub. L. 96-39) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. In developing U.S. standards, this Trade Act requires agencies to consider international standards and, where appropriate, that they be the basis of U.S. standards. Fourth, the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4) requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector, of \$100 million or more annually (adjusted for inflation with base year of 1995). This portion of the preamble summarizes the FAA's analysis of the economic impacts of this proposed rule.

Department of Transportation Order DOT 2100.5 prescribes policies and procedures for simplification, analysis, and review of regulations. If the expected cost impact is so minimal that a proposed or final rule does not warrant a full evaluation, this order permits that a statement to that effect and the basis for it be included in the preamble if a full regulatory evaluation of the cost and benefits is not prepared. Such a determination has been made for this proposed rule. The reasoning for this determination follows,

The proposed rule:

- (1) Imposes no incremental costs and provides benefits,
- (2) Is not an economically “significant regulatory action” as defined in section 3(f) of Executive Order 12866,
- (3) Is not significant as defined in DOT's Regulatory Policies and Procedures;
- (4) Would not have a significant economic impact on a substantial number of small entities;
- (5) Would not create unnecessary obstacles to the foreign commerce of the United States; and
- (6) Would not impose an unfunded mandate on state, local, or tribal governments, or on the private sector by exceeding the monetary threshold identified.

These analyses are summarized below.

Currently, there is no U.S. noise certification standard for Stage 3 helicopters in part 36. Part 36 includes only noise certification standards for Stage 1 and Stage 2 helicopters. There are more stringent international noise standards for helicopters in ICAO Annex 16, Environmental Protection, Volume 1, Aircraft Noise, Chapter 8 and Chapter 11 (Amendment 7). This proposed rule includes the amendments to part 36 certification requirements that would require more stringent noise limits and allow new helicopter type designs to be designated Stage 3. This proposed rule would allow a helicopter that meets the ICAO standards to be classified as a Stage 3 helicopter in the United States and would also apply to new helicopter type certification applications dated after the effective date of this proposed rule.

This proposed rule has two major benefits. This proposed rule may result in quieter helicopter operations for those models type certificated under these proposed standards.

This proposed rule also would make it easier to sell U.S. Stage 3 helicopters outside the United States because the noise standards will be the same as those of ICAO Annex 16, Volume 1, Chapter 8 and 11 standards.

Given the complexity and expense in developing new helicopter models, the FAA estimates that applications for two new helicopter type designs will be submitted in the next 10 year period; this would mirror the development of helicopter type designs in the last decade.

This proposed rule is not expected to result in additional costs. The U.S. testing procedures for helicopter noise certification already exist and require no changes when certifying a helicopter to Stage 3 standards. Further, these proposed standards are not retroactive. The proposed rule does not include any requirement to modify existing Stage 1 and Stage 2 helicopters. Therefore, there would be no incremental costs for certifying a helicopter to Stage 3 standards.

Although the FAA cannot quantify the benefits of the proposed rule, the rule would provide for quieter future helicopter models, would be consistent with international standards, and would not increase the cost of certification or noise testing. Thus the FAA finds that the benefits exceed the costs of the proposed rule.

Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (RFA) establishes “as a principle of regulatory issuance that agencies shall endeavor, consistent with the objective of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the business, organizations, and governmental jurisdictions subject to regulation.” To achieve that principle, the RFA requires agencies to solicit and consider flexible regulatory

proposals and to explain the rationale for their actions. The RFA covers a wide-range of small entities, including small businesses, not-for-profit organizations and small governmental jurisdictions.

Agencies must perform a review to determine whether a proposed or final rule will have a significant economic impact on a substantial number of small entities. If the agency determines that it will, the agency must prepare a regulatory flexibility analysis as described in the Act.

However, if an agency determines that a proposed or final rule is not expected to have a significant economic impact on a substantial number of small entities, section 605(b) of the 1980 RFA provides that the head of the agency may so certify and a regulatory flexibility analysis is not required. The certification must include a statement providing the factual basis for this determination, and the reasoning should be clear.

Helicopter Manufacturers

Size standards for small entities are published by the Small Business Administration (SBA) on their website at <http://www.sba.gov/size>. The size standards used herein are from “SBA U.S. Small Business Administration, Table of Small Business Size Standards, Matched to North American Industry Classification System Codes”.

Aircraft manufacturer size standards are listed in the above Table of small business size standards under Sector 31-33-Manufacturing; Subsector 336-Transportation Equipment Manufacturing; NAICS Code 336411-Aircraft Manufacturing. The small entity size standard for aircraft manufacturing is 1,500 employees.

American helicopter manufacturers range in size from several hundred employees to many thousands of employees. Therefore, some American helicopter manufacturers are

small entities. However, this proposed rule would not have a significant economic impact on any small entity because the proposed rule imposes no incremental costs.

Consequently, the FAA certifies that this proposed rule would not have a significant economic impact on a substantial number of small helicopter manufacturers.

International Trade Impact Assessment

The Trade Agreements Act of 1979 (Pub. L. 96-39), as amended by the Uruguay Round Agreements Act (Pub. L. 103-465), prohibits Federal agencies from establishing standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Pursuant to these Acts, the establishment of standards is not considered an unnecessary obstacle to the foreign commerce of the United States, so long as the standard has a legitimate domestic objective, such as the protection of safety, and does not operate in a manner that excludes imports that meet this objective. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards.

The FAA has assessed the potential effect of this proposed rule and determined that it would encourage international trade by using international standards as the basis for a rule for the United States noise certification of Stage 3 helicopters.

Unfunded Mandates Assessment

Title II of the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4) requires each Federal agency to prepare a written statement assessing the effects of any Federal mandate in a proposed or final agency rule that may result in an expenditure of \$100 million or more (adjusted annually for inflation) in any 1 year by State, local, and tribal governments, in the aggregate, or by the private sector; such a mandate is deemed to be a

“significant regulatory action.” The FAA currently uses an inflation-adjusted value of \$143.1 million in lieu of \$100 million. This proposed rule does not contain such a mandate; therefore the requirements of Title II do not apply.

Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)) requires that the FAA consider the impact of paperwork and other information collection burdens imposed on the public. The FAA has determined that there would be no new requirement for information collection associated with this proposed rule.

International Compatibility and Coordination

In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to conform our regulations to ICAO Standards and Recommended Practices to the maximum extent practicable. In 2001, ICAO adopted stringent helicopter noise standards. This proposed regulation will harmonize U.S. noise standards with the international standards by adopting the same requirements, adapted for U.S. regulatory format.

Executive Order (EO) 13609, Promoting International Regulatory Cooperation, (77 FR 26413, May 4, 2012) promotes international regulatory cooperation to meet shared challenges involving health, safety, labor, security, environmental, and other issues and reduce, eliminate, or prevent unnecessary differences in regulatory requirements. The FAA has analyzed this action under the policy and agency responsibilities of Executive Order 13609, Promoting International Regulatory Cooperation. The agency has determined that this action would eliminate differences between U.S. aviation standards and those of other

civil aviation authorities by adopting international standards, adapted for U.S. regulatory format.

Environmental Analysis

FAA Order 1050.1E identifies FAA actions that are categorically excluded from preparation of an environmental assessment or environmental impact statement under the National Environmental Policy Act (NEPA) in the absence of extraordinary circumstances. This rule proposes to adopt the same noise certification standards for helicopters adopted by ICAO. This rule proposes these noise limits to control the maximum noise levels of newly certificated helicopters. The FAA finds the applicability of these stricter noise standards to be environmentally consistent with available technology. The adoption of more stringent noise standards will require new type certificated helicopters in the U.S. to comply with lower noise levels, thus offering increased environmental protection.

The FAA has determined this rulemaking action qualifies for the categorical exclusion identified in paragraph 312f of NEPA and involves no extraordinary circumstances.

Executive Order Determinations

Executive Order 13132, Federalism

The FAA has analyzed this proposed rule under the principles and criteria of Executive Order 13132, Federalism. The agency has determined that this action would not have a substantial direct effect on the States, or the relationship between the Federal Government and the States, or on the distribution of power and responsibilities among the various levels of government, and, therefore, would not have Federalism implications.

Executive Order 13211, Regulations that Significantly Affect Energy Supply, Distribution, or Use

The FAA analyzed this proposed rule under Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use (May 18, 2001). The agency has determined that it would not be a “significant energy action” under the executive order and would not be likely to have a significant adverse effect on the supply, distribution, or use of energy.

Additional Information

Comments Invited

The FAA invites interested persons to participate in this rulemaking by submitting written comments, data, or views. The agency also invites comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit this only once.

The FAA will file in the docket all comments it receives, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, the FAA will consider all comments it receives on or before the closing date for comments. The FAA will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. The agency may change this proposal in light of the comments it receives.

Availability of Rulemaking Documents

An electronic copy of rulemaking documents may be obtained from the Internet by—

1. Searching the Federal eRulemaking Portal (<http://www.regulations.gov>);
2. Visiting the FAA's Regulations and Policies web page at http://www.faa.gov/regulations_policies or
3. Accessing the Government Printing Office's web page at <http://www.gpo.gov/fdsys/>.

Copies may also be obtained by sending a request to the Federal Aviation Administration, Office of Rulemaking, ARM-1, 800 Independence Avenue SW., Washington, DC 20591, or by calling (202) 267-9680. Commenters must identify the docket or notice number of this rulemaking.

All documents the FAA considered in developing this proposed rule, including economic analyses and technical reports, may be accessed from the Internet through the Federal eRulemaking Portal referenced in item (1) above.

List of Subjects in 14 CFR Part 36

Aircraft, Noise Control.

The Proposed Amendment

In consideration of the foregoing, the Federal Aviation Administration proposes to amend chapter I of title 14, Code of Federal Regulations as follows:

PART 36 —NOISE STANDARDS: AIRCRAFT TYPE AND AIRWORTHINESS CERTIFICATION

1. The authority citation for part 36 continues to read as follows:

Authority: 42 U.S.C. 4321 et seq.; 49 U.S.C. 106(g), 40113, 44701-44702, 44704, 44715; sec. 305, Pub. L. 96-193, 94 Stat. 50, 57; E.O. 11514, 35 FR 4247, 3 CFR, 1966-1970 Comp., p. 902.

2. Amend § 36.1 by redesignating paragraph (h)(5) as (h)(7); adding new paragraph (h)(5); and adding new paragraph (h)(6) to read as follows:

§ 36.1 Applicability and definitions.

* * * * *

(h) * * *

(5) A “Stage 3 noise level” means a takeoff, flyover, or approach noise level at or below the Stage 3 noise limit prescribed in section H36.305 of appendix H of this part, or a flyover noise level at or below the Stage 3 noise limit prescribed in section J36.305 of appendix J of this part.

(6) A “Stage 3 helicopter” means a helicopter that has been shown under this part to comply with the Stage 3 noise limits (including applicable tradeoffs) prescribed in section H36.305 of appendix H of this part, or a helicopter that has been shown under this part to comply with Stage 3 noise limits prescribed in section J36.305 of appendix J of this part.

(7) Maximum normal operating RPM means the highest rotor speed corresponding to the airworthiness limit imposed by the manufacturer and approved by the FAA. Where a tolerance on the highest rotor speed is specified, the maximum normal operating rotor speed is the highest rotor speed for which that tolerance is given. If the rotor speed is automatically linked with flight condition, the maximum normal operating rotor speed corresponding with reference conditions must be used during the noise certification procedure. If rotor speed can be changed by pilot action, the highest normal operating

rotor speed specified in the flight manual limitation section for reference conditions must be used during the noise certification procedure.

3. Amend § 36.11 by revising paragraph (c) and adding paragraph (d) to read as follows:

§ 36.11 Acoustical change: Helicopters.

* * * * *

(c) Stage 2 helicopters. For a helicopter that is a Stage 2 helicopter prior to a change in type design, the following apply:

- (1) A helicopter must be a Stage 2 helicopter after a change in type design, or
- (2) A helicopter must meet Stage 3 requirements after the change in type design and must remain a Stage 3 helicopter.

(d) Stage 3 helicopters. For a helicopter that is a Stage 3 helicopter prior to a change in type design, the helicopter must remain a Stage 3 helicopter after a change in type design.

4. Amend § 36.805 by revising paragraphs (b)(1) and (2) to read as follows:

§ 36.805 Noise limits.

* * * * *

(b) * * *

- (1) When an application for issuance of a type certificate in the primary, normal, transport, or restricted category is made between March 6, 1986 and *[effective date of rule]*, that the noise levels of the helicopter are no greater than the Stage 2 noise limits prescribed in

either section H36.305 of appendix H of this part or section J36.305 of appendix J of this part, as applicable; or

(2) When an application for issuance of a type certificate in the primary, normal, transport, or restricted category is made after *[effective date of rule]*, that the noise levels of the helicopter are no greater than the Stage 3 noise limits prescribed in either section H36.305 of appendix H of this part, or section J36.305 of appendix J of this part, as applicable.

* * * * *

5. In Appendix H of part 36 in section H36.305:

- A. Revise paragraph (a) introductory text;
- B. Revise paragraph (a)(2);
- C. Add paragraph (a)(3).

The additions and revisions read as follows:

Appendix H to Part 36 – Noise Requirements for Helicopters under Subpart H

Section H36.305 * * *

(a) Limits. For compliance with this appendix, the applicant must show by flight test that the calculated noise levels of the helicopter, at the measuring points described in section H36.305(a) of this appendix, do not exceed the following, (with appropriate interpolation between weights):

* * * * *

(2) Stage 2 noise limits are as follows:

(i) For takeoff — For a helicopter having a maximum certificated takeoff weight of 176,370 pounds (80,000 kg) or more, the noise limit is 109 EPNdB, which decreases

linearly with the logarithm of the helicopter weight (mass) at a rate of 3.01 EPNdB per halving of the weight (mass) down to 89 EPNdB, after which the limit is constant.

(ii) For flyover — For a helicopter having a maximum certificated takeoff weight of 176,370 pounds (80,000 kg) or more, the noise limit is 108 EPNdB, which decreases linearly with the logarithm of the helicopter weight (mass) at a rate of 3.01 EPNdB per halving of the weight (mass) down to 88 EPNdB, after which the limit is constant.

(iii) For approach — For a helicopter having a maximum certificated takeoff weight of 176,370 pounds (80,000 kg) or more, the noise limit is 110 EPNdB, which decreases linearly with the logarithm of the helicopter weight (mass) at a rate of 3.01 EPNdB per halving of the weight (mass) down to 90 EPNdB, after which the limit is constant.

(3) Stage 3 noise limits are as follows:

(i) For takeoff — For a helicopter having a maximum certificated takeoff weight of 176,370 pounds (80,000 kg) or more, the noise limit is 106 EPNdB, which decreases linearly with the logarithm of the helicopter weight (mass) at a rate of 3.01 EPNdB per halving of the weight (mass) down to 86 EPNdB, after which the limit is constant.

(ii) For flyover — For a helicopter having a maximum certificated takeoff weight of 176,370 pounds (80,000 kg) or more, the noise limit is 104 EPNdB, which decreases linearly with the logarithm of the helicopter weight (mass) at a rate of 3.01 EPNdB per halving of the weight (mass) down to 84 EPNdB, after which the limit is constant.

(iii) For approach — For a helicopter having a maximum certificated takeoff weight of 176,370 pounds (80,000 kg) or more, the noise limit is 109 EPNdB, which decreases linearly with the logarithm of the helicopter weight (mass) at a rate of 3.01 EPNdB per halving of the weight (mass) down to 89 EPNdB, after which the limit is constant.

* * * *

6. Amend Appendix J of part 36 by revising the appendix heading and in section J36.305 by revising paragraph (a) to read as follows:

Appendix J to Part 36 – Alternative Noise Certification Procedure for Helicopters Having a Maximum Certificated Takeoff Weight of Not More Than 7,000 Pounds

* * * *

Section J36.305 * *

(a) For primary, normal, transport, and restricted category helicopters having a maximum certificated takeoff weight of not more than 7, 000 pounds that are noise tested under this appendix:

(1) Stage 2 noise limit is constant at 82 decibels SEL for helicopters up to 1,737 pounds (787 kg) maximum certificated takeoff weight (mass) and increases linearly with the logarithm of the helicopter weight at a rate of 3.01 decibels SEL per the doubling of weight thereafter. The limit may be calculated using the equation:

$$L_{AE}(\text{limit}) = 82 + 3.01 [\log_{10}(\text{MTOW}/1737)/\log_{10}(2)] \text{ dB},$$

where MTOW is the maximum takeoff weight, in pounds.

(2) Stage 3 noise limit is constant at 82 decibels SEL for helicopters up to 3,125 pounds (1,417 kg) maximum certificated takeoff weight (mass) and increases linearly with the logarithm of the helicopter weight at a rate of 3.01 decibels SEL per the doubling of weight thereafter. The limit may be calculated using the equation:

$$L_{AE}(\text{limit}) = 82 + 3.01 [\log_{10}(\text{MTOW}/3125)/\log_{10}(2)] \text{ dB},$$

where MTOW is the maximum takeoff weight, in pounds.

* * * *

Issued in Washington, DC, on August 31, 2012.

Lourdes Maurice

Director, Office of Environment and Energy

[FR Doc. 2012-22714 Filed 09/17/2012 at 8:45 am; Publication Date: 09/18/2012]